

Scholarly Note: American Medical Development in Colonial Puerto Rico

Darryl E. Brock



Abstract

Consistent with its civilizing mission, the United States sought to enhance healthcare development in its new Puerto Rican colony, one of the spoils of the Spanish-American War. American military physicians rapidly cured the population of their devastating hookworm affliction and the Rockefeller Foundation soon began exporting this imperialist triumph to the far corners of the world. Leveraging that success, the Porto Rico Anemia Commission evolved into the Institute of Tropical Medicine, predecessor to the University of Puerto Rico's School of Tropical Medicine. Issues of agricultural development would also impact insular healthcare, uniquely driving aspects of medical development. Efforts to export American successes to broader Latin America provide useful perspectives as the United States seeks to influence other underdeveloped global areas in the twenty-first century.

Biography

Darryl E. Brock is a Ph.D. candidate in Modern History at Fordham University in New York City, with an M.A. in history from Claremont Graduate University in Southern California and an M.S. in marine science from the University of South Florida. He has recently published an article in the *Southeast Review of Asian Studies*, as well as a book chapter "José Agustín Quintero—Cuban Patriot in Confederate Diplomatic Service" in the book *Cubans in the Confederacy*. He is also author of the book *China and Darwinian Evolution: Influence on Intellectual and Social Development* and is currently co-editing the book *Mr. Science and Chairman Mao's Cultural Revolution*. Mr. Brock is a board member of the Irvine (CA) Sister Cities Foundation, previously served on the NSF panel for President Bush's Excellence in Science Teaching Awards, and recently received a British Council fellowship to present, in Egypt, on the influence of Darwin in China.

"We might well make Puerto Rico a base for cultural and scientific work the influence of which would be felt through both continents."

**Theodore Roosevelt, Jr.,
Puerto Rican governor (1932)¹**

The era of Dollar Diplomacy found the United States seeking to exert influence on different Caribbean nations such as the Dominican Republic and Nicaragua without their formal incorporation into the American empire, but Puerto Rico represented imperialism *with* colonization.² The flurry of U.S. official and quasi-official representatives, subsequent to the 1898 annexation from Spain, revealed the civilizing mission as a motivating force. New York Botanical Garden botanist Lucien Underwood, for example, conducted studies of Puerto Rico in 1901 and extolled the island. Trekking through the mountains on horseback, he marveled at the luxuriant landscape, with coffee, tobacco and sugar cane in cultivation. Underwood represented Puerto Rico as a "rare prize," ready for modernization and development. He concluded that America owed Puerto Rico "the benefits of Anglo-Saxon civilization," which he claimed the islanders sought with great interest.³

The United States did seek to deliver those benefits and it immediately set out to remake the island in the image of the United States, exporting American finance, education and scientific expertise in tropical medicine and agriculture. *The British Medical Journal* noted in 1898 that the recent American takeover of "Porto Rico" offered potential new opportunities for the physician's practice. At the same

time, the *Journal's* stance reflected British colonial attitudes toward the "inferior" peoples of the tropics, the empire seemingly unaware of an existing medical tradition on the island.⁴

The Puerto Rican elite initially welcomed the United States takeover from Spain, looking forward to the prospect of egalitarian, progressive American traditions replacing centuries of Spanish exploitation and neglect. Physicians numbered among those elite, the vanguard of a now stillborn autonomous movement. They nevertheless hoped to advance their liberal agenda under new U.S. government oversight, imagining reforms against alcoholism, robbery and homicide, among the ills originating from Spanish colonialism. Arrival of Americans, however, with their own phalanx of physicians under Uncle Sam's new colonial mandate, presented competition for authority and legitimacy. Despite Puerto Rico's experience with smallpox vaccinations, for example, the new colonial authority virtually bypassed insular physicians in the American smallpox campaign of 1898.⁵ U.S. administrators typically viewed Puerto Rican physicians as self-serving, corrupt and incompetent, hardly differentiating them from pharmacists, *parteras* (midwife medical practitioners), or *curanderos* (rural semi-trained technicians).⁶ The Americans thus engaged in a contemptuous disregard for local knowledge, as colonial administrators in European empires had done before.

Ciriaco and Hookworms

The United States faced an unexpected



Theodore Roosevelt, Jr., governor of Puerto Rico (1929-1932) and governor-general of the Philippines (1932-33).

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threat within a year of its invasion—the even greater power of the menacing hurricane San Ciriaco. *Scientific American* couched its appeal for disaster relief in paternalistic, imperialistic terms, describing the storm’s “awful desolation” that resulted in a starving, homeless people, a challenge to the “warm-hearted [American] race” that undertook the war to advance humanity. That is, the nation must prove to a skeptical, civilized world that it would meet “the white man’s burden” to clothe, house and feed these millions in their time of sorrow.⁷

That natural disaster resulted in the American military government appointing a young army physician, Bailey K. Ashford, to establish a tent hospital in the city

of Ponce to coordinate medical relief for the refugees pouring in from the mountains and rural spaces. It would be in this provisional facility that Ashford would initiate his hookworm research, a campaign that would bring international attention to Puerto Rico.⁸ Ashford offered hope to the 800,000 people—more than four-fifths of the population—estimated afflicted with hookworm disease. The Porto Rico Anemia Commission, founded by Ashford and employing his thymol treatment, lowered death rates seven-fold (decreasing to 1,758 by 1907, from 11,875 in 1900).⁹ Puerto Rican physicians took over the hookworm program upon Ashford’s return to the United States in 1906. Under their leadership, the campaign treated over 250,000 people by 1910. The Rockefeller Commission visited Puerto Rico and found the program impressive; they soon exported it to the United States to treat American Southerners. This initiative, in the Old South, took the designation Sanitary Commission for the Eradication of Hookworm Disease. Internationally, the success of the Southern hookworm project, with origins in Puerto Rico, later led to the Rockefeller Foundation exporting the campaign to Egypt and Australia under the auspices of the foundation’s International Health Board.¹⁰

Tropical Medicine and Governor Roosevelt’s Vision

Ashford leveraged strong support from the American-dominated “Porto Rican” legislature into continued funding under the post-1917 era legislature, a body finally comprised of local Puerto Rican of-

ficials. Physician members of the Porto Rico Anemia Commission re-established themselves in 1912 under auspices of Ashford's new Institute of Tropical Medicine, located near the island's capitol building, the predecessor to the University of Puerto Rico's School of Tropical Medicine, which would later open in 1925. Funded by the Puerto Rican government but largely operated by Columbia Univer-



Col. Bailey K. Ashford, founder of the Porto Rico Anemia Commission, received international acclaim for his successful insular hookworm program.

Photo | Library of Congress

sity, the school exported biological expertise internationally and its early graduates included a Spanish Jesuit and a Hindu from India.¹¹ The journal *Science* took note of this new institution, in 1927 reporting public lectures by visiting scholars such as a tropical disease specialist from Caracas, and the director of the Rockefeller Insti-

tute for Medical Research in New York City, Simon Flexner.¹² Former Puerto Rican governor Theodore Roosevelt, Jr.,

Governor Theodore Roosevelt, Jr., for example, imagined Puerto Rico as a bridge between the United States and Latin America, making up for past American errors in the region.

son of the president, wrote in *Foreign Affairs* that the school would discover cures for tropical diseases, drawing youth from the Central and South American nations, and that "many of the Puerto Rican graduates will go to those countries to practice."¹³ By 1949 the institution would be absorbed into the University of Puerto Rico School of Medicine.

Just over one year after the school's founding, in 1927, the Rockefeller Foundation sent one of its tropical medicine specialists, Francis William O'Conner, to conduct research on filariasis diseases such as elephantiasis.¹⁴ Born a colonial subject of the British Empire, the Irish physician readily perceived underlying economic determinants for Puerto Rican health. At the end of his trip, in his *Diary* he reflected that Puerto Ricans are "exploited by absentee landlords who leave no chance for the small producer."¹⁵ O'Conner's Rockefeller Foundation colleagues, however, tended to ascribe these

factors to the more naïve notion that disease causes poverty and thus that health actions could promote economic development. In fact, in exploiting widespread unemployment and a tariff-free colonial zone, those “absentee” American corporate sugar producers had largely displaced coffee and other crops, creating massive economic and social dislocation in Puerto Rico.



Examination of child for hookworm in a Puerto Rican Resettlement Administration (PRRA) center, San Juan, Puerto Rico (1938).

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Expanding upon O’Conner’s observations, the medical historian José G. Rigau-Pérez links those colonial medical institutions of 1927 to the broader economic history: “All the medical research and public health efforts were necessary to counteract the consequences of an economy based primarily on one product: cane sugar.” In fact, malaria and schistosomiasis incidence coincided with proximity to sugar cane production, the asso-

ciated irrigation projects providing the vehicle for broad dissemination of infectious agents.¹⁶ In short, disease does not exclusively cause poverty, but economic development can be the source of disease as well.

Concluding Thoughts

Well-intentioned development and peace initiatives may encounter unexpected difficulty in achieving objectives, despite their allure as ideal solutions to intractable challenges. Governor Theodore Roosevelt, Jr., for example, imagined Puerto Rico as a bridge between the United States and Latin America, making up for past American errors in the region. Yet, despite successes experienced with the School of Tropical Medicine and the University of Puerto Rico in service to greater Latin America, tensions between the U.S. and Latin America continue, with Puerto Rican agency proving marginal in effecting progress. These new Americans—citizens after the 1917 Jones Act—found their shared linguistic, cultural and historical heritage with Latin America inadequate to overcome larger differences originating from North American hegemony and the systemic peculiarities of Spanish-speaking America.

Economic practices in specific locales may have broad, unexpected social, environmental or medical impacts on development. The Puerto Rican example reveals that displacement of existing crops with sugar monoculture had created massive economic and social dislocation. Healthcare development, in turn, suffered as public health mobilized to counteract

the consequences of an economy based primarily on the single product of cane sugar. That is, disease coincided with proximity to sugar cane production, with irrigation providing the vehicle for broad dissemination of infectious agents.

Colonial Puerto Rico also demonstrates the global application of local knowledge. Ashford's success against hookworm assumed a broad international reach, not only within the American imperial sphere, but beyond. Eradicating hookworms in Puerto Rico took on a life in the American South before the Rockefeller Foundation exported the achievement to Egypt and elsewhere.

The history of the Puerto Rican encounter with the United States offers unique insights into issues of development, these challenges yet relevant in the twenty-first century. At the turn of the century, Americans sought to influence an underdeveloped, Spanish-speaking, Catholic nation that shared little in the way of U.S. traditional values and institutional heritage. More than a century later, the United States still finds itself seeking to influence underdeveloped nations with differing linguistic, religious and political traditions. The experiences of past imperial episodes may help guide new encounters in the postmodern period.

Endnotes:

1. Theodore Roosevelt, Jr. "Puerto Rico: Our Link with Latin America." *Foreign Affairs* 12 (1934): 280.
2. This scholarly note augments the author's more detailed treatment of American imperialism, also in this issue of the *JGDP*, entitled "American International Relations: Lessons from Dollar Diplomacy and Caribbean Development."
3. Peter Mickulas, *Britton's Botanical Empire: The New York Botanical Garden and American Botany, 1888-1929* (New York: The New York Botanical Garden Press, 2007), 218.
4. "Medical Practice in Porto Rico," *The British Medical Journal* 2 (1898): 1836.
5. Nicole Trujillo-Pagán, "The Politics of Professionalization: Puerto Rican Physicians during the Transition from Spanish to US Colonialism," in *Health and Medicine in the circum-Caribbean, 1800-1968*, ed. Juanita de Barros, Steven Palmer and David Wright (New York: Routledge, Taylor and Francis Group: 2009).
6. Trujillo-Pagán.
7. "A National Opportunity," *Scientific American* LXXXI (1899), 130.
8. Trujillo-Pagán.
9. Benigno Trigo, "Anemia and Vampires: Figures to Govern the Colony, Puerto Rico 1880 to 1904," *Comparative Studies in Society and History* 41 (1999): 118-119; Muna Lee, "Conquistador for Science," *The North American Review* 226 (1928): 132-133; Rodrigo Fernos, *Medicine and International Relations in the Caribbean: Some Historical Variants* (Lincoln, Nebraska: iUniverse, Inc., 2006): 172.
10. Warwick Anderson, *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines* (Durham: Duke University Press, 2006), 7, 195-196.
11. Lee; Fernos, 164, 174; Norman I. Maldonado, *On Health in Puerto Rico* (San Juan: La Editorial Universidad de Puerto Rico, 2008), 134.
12. "The Porto Rican School of Tropical Medicine," *Science* 64 (1926): 322-323; R.A. Lambert, "Public lectures at the School of Tropical Medicine at the University of Porto Rico," *Science* 65 (1927): 440.
13. Theodore Roosevelt, Jr. "Puerto Rico: Our Link with Latin America." *Foreign Affairs* 12 (1934): 279.
14. Raúl Mayo Santana, Annette Ramírez de Arellano and José G. Rigau-Pérez, eds., *A Sojourn in Tropical Medicine: Francis W. O'Connor's Diary of a Porto Rican Trip, 1927* (San Juan: Le Editorial Universidad de Puerto Rico, 2008), 1-11.

15. Santana et al., eds.
16. José G. Rigau-Pérez, "The Apogee of Tropical Medicine: An Epidemiologic Portrait of Puerto Rico in 1927," in Santana et al. eds., *A Sojourn in Tropical Medicine*, 147-211.